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**Governor Baker Announces \$7 Million in New Advanced
Manufacturing Awards and Celebrates Opening of UMass Lowell's
Fabric Discovery Center**

Center opening marks first collaboration of three Manufacturing USA Institutes; new awards will support development of next-generation technology with commercial and national defense applications and job creation in Massachusetts

LOWELL – Today, Governor Charlie Baker joined leaders from UMass Lowell, national manufacturing institutes and the Massachusetts advanced manufacturing community to officially open the Fabric Discovery Center at UMass Lowell, a unique research and development facility. The center will drive innovation in textile research and provide a foundation for collaboration between university research, students, and companies from across the Commonwealth. Today's ribbon cutting follows Governor Baker's [May 2017 announcement](#) of state funding for the construction of the new Fabric Discovery Center through a \$10 million award to UMass Lowell. Massachusetts Manufacturing Innovation Initiative (M2I2) is a state program that invests in emerging advanced manufacturing projects.

Governor Baker also announced \$7 million in new M2I2 grants to support six additional advanced manufacturing projects located across Massachusetts. This new set of awards includes \$1 million to support the new ARMada initiative, which will enhance the offerings of the Fabric Discovery Center to include robotics. This new investment will make the Fabric Discovery Center in Lowell the first center in the nation to benefit three Manufacturing Innovation Institutes in Massachusetts: the Revolutionary Fiber and Textile Manufacturing Innovation Institute, and the Manufacturing Innovation Institute for Flexible Hybrid Electronics and the Robotics Manufacturing Innovation Institute.

"This new Fabric Discovery Center will bolster the advanced manufacturing sector in the Commonwealth by promoting innovation, R&D, and advanced technologies," **said**

Governor Charlie Baker. “Our administration is proud of its continued support of advanced manufacturing, and these awards highlight the strong partnerships that exist between our world-class academic institutions and leading companies from across the Commonwealth and around the globe and look forward to seeing the continued progress.”

“We are proud Massachusetts is making history with the Fabric Discovery Center at UMass Lowell,” **said Lt. Governor Karyn Polito.** “And the awards Governor Baker announced represent critical investments in our state universities, growing manufacturing firms, and top research centers that call Massachusetts home. These investments in our R&D hubs are critical to enabling breakthroughs in technology throughout the Commonwealth and continuing our leadership as the #1 state for innovation.”

The Fabric Discovery Center is housed at 110 Canal Street in Lowell, which is also home to UMass Lowell’s [Innovation Hub \(iHub\)](#), Medical Device Development Center and the newly opened New England Robotics Validation and Experimentation (NERVE) Center, a testbed for robotics systems that is utilized as a training center by faculty and students, but also by Massachusetts robotics companies, software developers, and manufacturers looking to test their systems. The NERVE Center will be the home for the new robotics investment from M2I2. The facility at 110 Canal Street has received significant state funding from the Executive Office of Housing and Economic Development, MassDevelopment, and the Massachusetts Life Sciences Center. The building is located in Lowell’s Hamilton Canal District, which received \$4.7 million in funding from the Baker-Polito Administration under the MassWorks program for redevelopment efforts.

The Baker-Polito Administration has committed more than \$100 million in funding over five years to the M2I2 effort, which provides a vehicle for the Commonwealth to invest in the Manufacturing USA program and advance innovation and job growth through cross-collaboration among companies, universities, national labs, government, incubators, accelerators, and other academic/training institutions. To date, the M2I2 program has made direct commitments totaling \$46 million, including the \$7 million in awards to the six grantees announced today by the Governor.

Last fall, [Governor Baker and Secretary Jay Ash announced nearly \\$7 million](#) in M2I2 statewide grants during a ‘Manufacturing Month’ visit to UMass Amherst. In February, HED Secretary Jay Ash announced a [\\$400,000 grant to UMass Lowell for a project with Billerica’s SI2 Technologies](#), an award funded in partnership with the NextFlex Institute. To date, the M2I2 program has made direct commitments totaling \$46 million, including the \$7 million in awards to the six grantees announced today by the Governor.

“These awards continue our commitment to supporting the development of tomorrow’s technology here in Massachusetts, which will lead to the opportunities and jobs for Massachusetts students and workers,” **said Housing and Economic Development Secretary Jay Ash.** “Our educational institutions are creating the

foundation for new technology sectors to flourish here in Massachusetts, from R&D through to manufacturing, and we are confident Massachusetts has the talent and resources to ensure this becomes a reality.”

“Today marks an exciting milestone for the city with the opening of the Fabric Discovery Center at UMass Lowell,” **said State Representative Thomas A. Golden, Jr. (D-Lowell), chairman of the Joint Committee on Telecommunications, Utilities, and Energy.** “Not only is the center a fitting tribute to Lowell’s roots as a leader in the textile industry, it also places UMass Lowell at the forefront of innovative textile research and facilitates collaboration with advanced manufacturing companies already thriving in the Commonwealth.”

Under the Manufacturing USA program, Massachusetts is convening the national effort to develop revolutionary functional fibers and textiles, and participating in regional manufacturing innovation institutes in robotics, integrated photonics, flexible hybrid electronics, and biopharma manufacturing. M2I2 awards support critical research and development infrastructure in four of these sectors, working closely with each of the national manufacturing institutes, including Next Flex (flexible-hybrid electronics), AIM Photonics (integrated photonics), ARM (robotics), and Cambridge-based AFFOA (advanced functional fabrics).

“UMass Lowell’s Fabric Discovery Center is a shining testament to the value of public-private partnerships,” **said UMass President Marty Meehan.** “This critical investment from the Baker-Polito Administration empowers us to be laser-focused on our shared mission of accelerating growth in established and emerging industries alike, creating a stronger and more vibrant economy in all corners of Massachusetts.”

“The opening of the UMass Lowell Fabric Discovery Center is a powerful demonstration of this university’s national leadership in translating cutting-edge research into solutions that improve people’s lives,” **said UMass Lowell Chancellor Jacquie Moloney.** “Through partnerships with private industry, the U.S. Department of Defense and the Commonwealth, UMass Lowell students, faculty and researchers are revolutionizing high-tech manufacturing and restoring Lowell’s historical textile leadership as the center of ‘smart’ clothing, fabric and flexible electronics advances.”

“UMass Lowell’s Fabric Discovery Center will enable companies to design, test and create new products and technologies, helping to grow the workforce and shape tomorrow’s economy,” **said Julie Chen, UMass Lowell’s vice chancellor for research and innovation.** “UMass Lowell students, researchers and industry partners working at the center will benefit from the resources of three Manufacturing USA institutes in next-generation fabrics, flexible electronics and robotics, along with the expertise of entrepreneurs and advisers working in the Massachusetts Medical Device Development Center and UMass Lowell Innovation Hub business incubators – both of which are located in the same building. As a result, the center represents a unique national model of public-private collaboration and excellence.”

Several representatives from the national institutes were on hand today, including Dr.

Yoel Fink, CEO of AFFOA, which was the recipient of an M2I2 grant that will support the expansion of AFFOA's first Fabric Discovery Center, located at its national headquarters in Cambridge, Mass.

"As Mayor of Lowell, I am thrilled to be welcoming the Fabric Discovery Center to our city," **said Lowell Mayor William Samaras**. "Lowell's textile mills served as the birthplace of the American Industrial Revolution. Now, nearly 200 years later, this center shows that both the City of Lowell and the Commonwealth of Massachusetts truly do remain at the forefront of innovation in fabrics and manufacturing."

"The new Fabric Discovery Center will showcase both Lowell's proud past and exciting future as a leader in the manufacturing and textile sector," **said Representative David Nangle**. "I applaud Governor Baker and his team, along with the UMass Lowell administration, for providing the funding and direction that will surely make this a state of the art research and development facility."

According to the [Manufacturing in Massachusetts](#), 10% of the Commonwealth's total economic output is tied to manufacturing and \$26 billion in manufactured goods were exported from the Commonwealth in 2016 alone. Roughly 250,000 employees work in the manufacturing sector in Massachusetts, comprising 7.8 percent of the total workforce in the state.

Investments in the innovation ecosystem, including these advanced manufacturing awards, are a critical component of the Baker-Polito Administration's economic development efforts to promote the vitality of communities, the growth of Massachusetts businesses, and the prosperity of people and families in the Commonwealth. In March, Governor Baker filed [An Act Enhancing Opportunities for All](#), which includes over \$600 million in tools and resources to support communities, businesses, and residents. Included in the bill is \$300 million new authorization of MassWorks Infrastructure Program and \$75 million in Skills Capital Grants, building on the Governor's 2016 economic development legislation, *An Act Relative to Job Creation and Workforce Development*. And, last month, Governor Baker signed [An Act Providing Continued Investment in the Life Sciences Industry in the Commonwealth](#) to invest up to \$623 million in bond authorization and tax credits over five years in education, research and development, and workforce training through the Massachusetts Life Sciences Center, to ensure Massachusetts remains a globally recognized life sciences center.

About M2I2:

Launched by the Baker-Polito Administration in 2016, the [Massachusetts Manufacturing Innovation Initiative \(M2I2\)](#) aims to help Massachusetts manufacturers adopt innovative new technologies and administers the Commonwealth's investment in the Manufacturing USA program. The Administration has committed \$100 million-plus in funding over five years to support M2I2 projects across the Commonwealth; the investments are managed by the Massachusetts Technology Collaborative. Through the creation of sector-specific Manufacturing USA

Centers, M2I2 will advance innovations and job growth within the state through cross-collaboration among companies, universities, national labs, government, incubators, accelerators, and other academic and training institutions. To learn more about the M2I2 program, including how Massachusetts manufacturers can apply for grants, visit <http://m2i2.masstech.org>

M2I2 Awards:

UMass Lowell Fabric Discovery Center, New England Robotics Validation and Experimentation (NERVE) Center	Lowell	\$1,000,000	Creates the Robot ARMada, a nation-leading testbed of robotic industrial manipulators for robotics companies, software developers, and manufacturers, as well as a robotics training center for university and community college students and faculty.
AFFOA Fabric Discovery Center (FDC) Headquarters - Education and Workforce Development Project	Cambridge	\$2,574,300	Supports facilities and equipment at AFFOA's Fabric Discovery Center located at the Institute's national headquarters in Cambridge. This grant will enable the creation of jobs for 15 to 19 additional staff; support prototyping and mentoring of 29 functional fabric start-ups via AFFOA's new Entrepreneurship Program ; and sustain the development of a high school vocational training program with Greater Lawrence Technical School & MIT.
UMass Amherst Vital Signs Monitoring	Amherst	\$239,719	Enables the development of vital sign monitoring technology in the NextFlex Institute . The project will validate core processes and equipment in the UMass Print and Roll-to-Roll Fabrication and Processing Facility , a facility for development of scalable manufacturing of advanced wearable sensors. These processes will be made available to Massachusetts industry members for similar flexible

			hybrid electronics integration and application areas.
American Boronite Corporation	Burlington	\$240,000	This grant will allow Boronite to expand their Boron Nitride Nanotubes (BNNTs) textile manufacturing at their Burlington facility and enable them to bid on new contracts at multiple Department of Defense contractors and related businesses. BNNTs are a revolutionary material with unique multifunctional properties and great commercial potential. This proposal is funded in partnership with AFFOA .
Carpe Diem, Inc.	Franklin & Amherst	\$2,150,000	The grant funds a collaborative supply chain between Carpe Diem Inc. and other small & medium-sized enterprises in the Commonwealth, as well as participation by UMass Amherst. Also supported by the national NextFlex Institute for flexible-hybrid electronics, this partnership is expected to create over 100 new manufacturing jobs within three years as the partners develop new printed hybrid electronics solutions for a host of applications including air filters and medical devices.
Pendar Technologies	Cambridge	\$845,000	Supported in partnership with the American Institute for Manufacturing Integrated Photonics (AIM Photonics) , this award will allow Pendar to bring a proprietary manufacturing process in-house, helping the company achieve high yields and low costs for their core, patented laser. This move will open up volume commercial spectroscopic applications and

			enable the company to apply for other DoD grants, helping the firm to create 20 to 40 new manufacturing jobs, and a potential increase in revenue of \$5 to \$10 million annually, as they transform the Infrared (IR) Spectroscopy market.
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